

REMARKS

The Office Action mailed May 26, 2006, has been carefully considered. The present Amendment is intended to be a complete response thereto and to place the case in condition for allowance.

Claims 1-20 are pending. Claims 1, 9-11 and 13-16 have been amended. Support for the amendment to claim 1 is found, *inter alia*, in the specification on page 16, line 7, to page 17, line 14; page 19, line 10, to page 20, line 10; and Figures 14, 16, and 17. Claims 9-16 have been amended to use consistent claim terms.

THE DRAWINGS ARE PROPER

The drawings stand objected to under 37 C.F.R. § 1.83(a) for failing to show every feature of the invention specified in the claims. The Examiner alleges that the drawing fail to show the limitation "the routing channel." Applicant has deleted this limitation from the claims. Therefore, the drawings are now proper.

THE CLAIMS ARE NOT OBVIOUS

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. § 103(a) as being obvious over Kuroda (U.S. Patent No. 5,331,514) in view of McNamara et al. (U.S. Patent No. 6,537,087), and further in view of Uematsu et al. (U.S. Patent No. 6,787,710). Applicant respectfully traverses the rejection.

The references, alone or in combination, fail to teach or suggest all the claim limitations. In particular, the references fail to disclose that the row of conductive vias form a repeating

pattern comprising ground conductor conductive via ("ground via"), signal conductor conductive via ("signal via"), ground conductor conductive via ("ground via").

The present invention requires a repeating pattern of ground, signal, ground vias, which is not disclosed by Kudora or any other cited references. This pattern as seen in Figures 14, 16, and 17, requires two adjacent ground vias on either side of each signal via. To show this relationship clearly, Applicant has attached herewith Exhibit A showing an annotated Figure 14 to illustrate the via pattern of the present invention.

The Examiner points to Kudora to show various via patterns; however, the reference does not disclose a pattern of ground, signal, ground vias along a row, as claimed and shown in Figures 14, 16, and 17 of the present application. In Fig. 1, Kudora discloses a pattern of alternating ground and signal vias. In Fig. 5, Kudora discloses either 1) a pattern of alternating ground and signal vias; or 2) a row of all ground vias. None of these patterns is the same as the ground, signal, ground vias pattern of the present invention.

The Examiner relies on McNamara et al. to disclose routing channels, and Uematsu et al. to disclose conductive vias extending through a multiplayer substrate. However, because these references do not cure the deficiency of Kudora discussed above, their combination still do not teach or suggest all the limitations of the present invention.

Therefore, for the foregoing reasons, the cited references do not render the claims obvious within the meaning of 35 U.S.C. § 103. Accordingly, Applicant respectfully requests withdrawal of the rejection.

THE CLAIMS ARE ALLOWABLE

Applicant gratefully acknowledges the Examiner indicating claims 9-20 as being allowable and claims 5 as being allowable if rewritten in independent form. The claims have been amended to provide better consistency between like terms.

CONCLUSION

Applicant has responded to the Office Action mailed May 26, 2006. A Petition for a three-month extension of time, and fee therefor are filed herewith. All pending claims are now believed to be allowable and favorable action is respectfully requested.

In the event that there are any questions relating to this Amendment or to the application in general, it would be appreciated if the examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (124315-00396). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this response, applicant hereby petitions under 37 C.F.R. 1.136(a) for an extension of time for as many months as are required to render this submission timely.

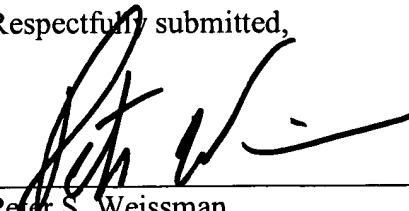
U.S. Serial No: 10/603,048
Atty Docket No: 124315-00396
Reply to Office Action of May 26, 2006

Any fees due are authorized above.

Respectfully submitted,

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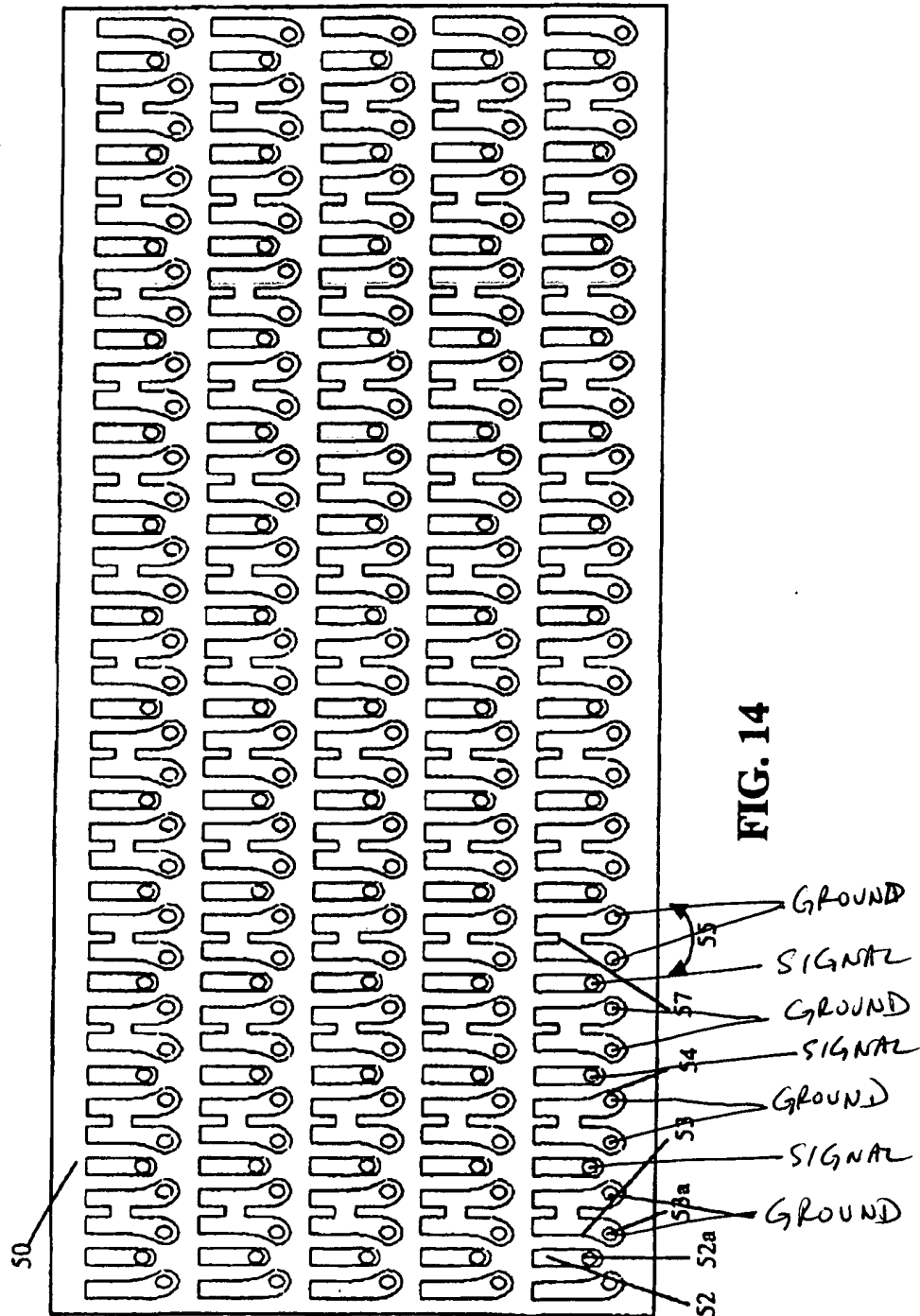


EXHIBIT A